

**INTEGRATED CIRCUIT MEMORY DEVICES INCLUDING ACTIVE LOAD
CIRCUITS AND RELATED METHODS**

ABSTRACT OF THE DISCLOSURE

5 An integrated circuit memory device can include a memory cell array having a plurality of memory cells, and a bit line sense amplifier configured to amplify data on a pair of bit lines from a memory cell of the memory cell array and to provide the amplified data on a data line and a complementary data line. An active load circuit includes a first load device electrically connected between the data line and a voltage source wherein an electrical resistance of the

10 first load device is varied responsive to a voltage level of the data line. The active load circuit also includes a second load device electrically connected between the complementary data line and the voltage source wherein an electrical resistance of the second load device is varied responsive to a voltage level of the complementary data line. Related methods are also discussed.